



# **Addressing Transportation Equity in the Clean Air/Sustainable Communities Goal Area**

**March 5, 2020**

**Betsy Harvey**

# Outline

- **Recap of proposed revisions to Clean Air/Sustainable Communities (CA/SC) criteria**
- **Overview of transportation equity (TE) scoring proposal**
- **Proposed CA/SC criteria for evaluating impacts on equity populations**
- **Creating an equity index**
- **Application to CA/SC criteria**

# Existing and Proposed Criteria: Reduces CO<sub>2</sub>

	Existing	Proposed
Criterion	Reduces Carbon Dioxide (CO <sub>2</sub> )	Reduces CO <sub>2</sub>
Scale	<ul style="list-style-type: none"> <li>+5 1,000+ annual tons reduced</li> <li>+4 500-999</li> <li>+3 250-499</li> <li>+2 100-249</li> <li>+1 Less than 100</li> <li>0 No impact</li> <li>-1 Less than 100</li> <li>-2 100-249</li> <li>-3 250-499</li> <li>-4 500-999</li> <li>-5 1,000+ annual tons increased</li> </ul>	<ul style="list-style-type: none"> <li>+5 1,000+ annual tons reduced</li> <li>+4 500-999</li> <li>+3 250-499</li> <li>+2 100-249</li> <li>+1 Less than 100</li> <li>0 No impact</li> <li>-1 Less than 100</li> <li>-5 100+ annual tons increased</li> </ul>

# Existing and Proposed Criteria: Reduces Other Emissions

	Existing	Proposed
<b>Criterion</b>	Reduces other emissions [volatile organic compounds (VOC), nitrogen oxides (NOx), and carbon monoxide CO]	Reduces other emissions [VOC, NOx, CO, particulate matter (PM <sub>2.5</sub> )]
<b>Scale</b>	<ul style="list-style-type: none"> <li>+5 2,000+ annual kilograms reduced</li> <li>+4 1,000-1,999</li> <li>+3 500-999</li> <li>+2 250-499</li> <li>+1 Less than 250</li> <li>0 No impact</li> <li>-1 Less than 250</li> <li>-2 250-499</li> <li>-3 500-999</li> <li>-4 1,000-1,999</li> <li>-5 2,000+ annual kilograms increased</li> </ul>	<ul style="list-style-type: none"> <li>+5 2,000+ annual kilograms reduced</li> <li>+4 1,000-1,999</li> <li>+3 500-999</li> <li>+2 250-499</li> <li>+1 Less than 250</li> <li>0 No impact</li> <li>-1 Less than 250</li> <li>-5 250+ annual kilograms increased</li> </ul> <div style="border: 2px solid brown; border-radius: 15px; padding: 10px; margin-top: 10px;"> <ul style="list-style-type: none"> <li>+2 Project reduces emissions in area above state average for PM<sub>2.5</sub></li> <li>-2 Project increases emissions in area above state average for PM<sub>2.5</sub></li> </ul> </div>

# Existing and Proposed Criteria: Addresses Environmental Impacts

	Existing	Proposed
Criterion	Addresses environmental impacts	Addresses environmental impacts
Scale	<ul style="list-style-type: none"> <li>+1 Address water quality</li> <li>+1 Address cultural resources/open space</li> <li>+1 Address wetlands/resource areas</li> <li>+1 Address wildlife preservation/habitat</li> </ul>	<div style="border: 2px solid #8B4513; border-radius: 15px; padding: 10px; margin-bottom: 10px;"> <ul style="list-style-type: none"> <li>+3 Project reduces impervious surfaces or invests in green infrastructure</li> <li>+1 Project uses stormwater best management practices to improve existing conditions</li> <li>0 No impact</li> <li>-1 Project expands impervious surfaces OR does not fully address existing water quality issues</li> </ul> </div> <ul style="list-style-type: none"> <li>+1 Project avoids negative impacts to cultural resources, open space, wetlands, natural resource areas, wildlife areas, or protected habitats</li> </ul>

# Existing and Proposed Criteria: Green Community

	Existing	Proposed
<b>Criterion</b>	Is in an EOEEA-certified “Green Community”	Project enhances natural environment
<b>Scale</b>	+2 Project located in “Green Community”	+1 Project results in net increase in tree canopy coverage +1 Project increases access to parks, open space, or other natural assets

# Proposed Evaluation Framework

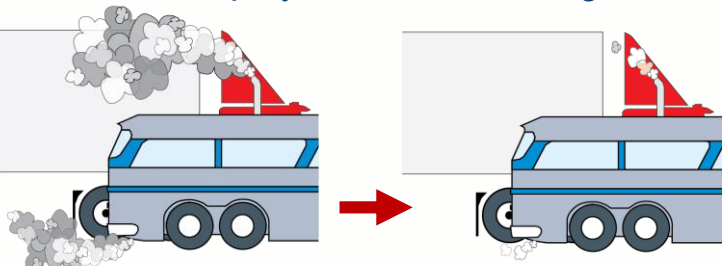
Goal: Evaluate project's impacts on equity populations

## Evaluate Equity Criteria

CA/SC  
Criteria



Evaluate equity criteria in each goal area



**Reduce emissions**



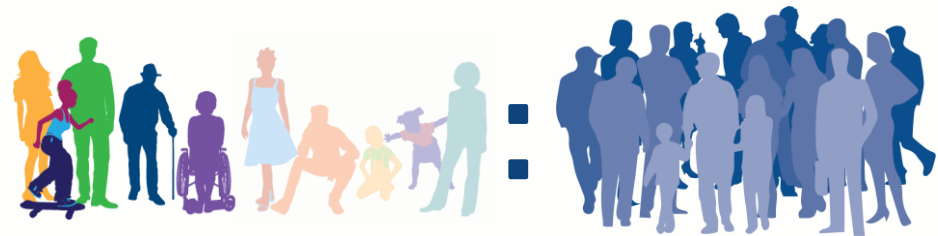
Base Score

X

## Identify Equity Populations in Project Area



Determine the share of the equity population  
and compare to the regional average




Equity Multiplier

**= Final Score**

# Proposed CA/SC Criteria

- Reduces CO<sub>2</sub>
- Reduces other transportation-related emissions (CO, NO<sub>x</sub>, VOCs, and PM<sub>2.5</sub>)
- Addresses environmental impacts
- Enhances the natural environment



“People who live along busy roadways are typically minorities, low income, or other sensitive groups. They are disproportionately impacted by the effects of pollution and emissions.”



# TE Populations

Minority population



Low-income population ( $\leq 200\%$  of the poverty level)



People with limited English proficiency (LEP)



Elderly population (ages 75 and older)



People with disabilities



Youth population (ages 17 and younger)

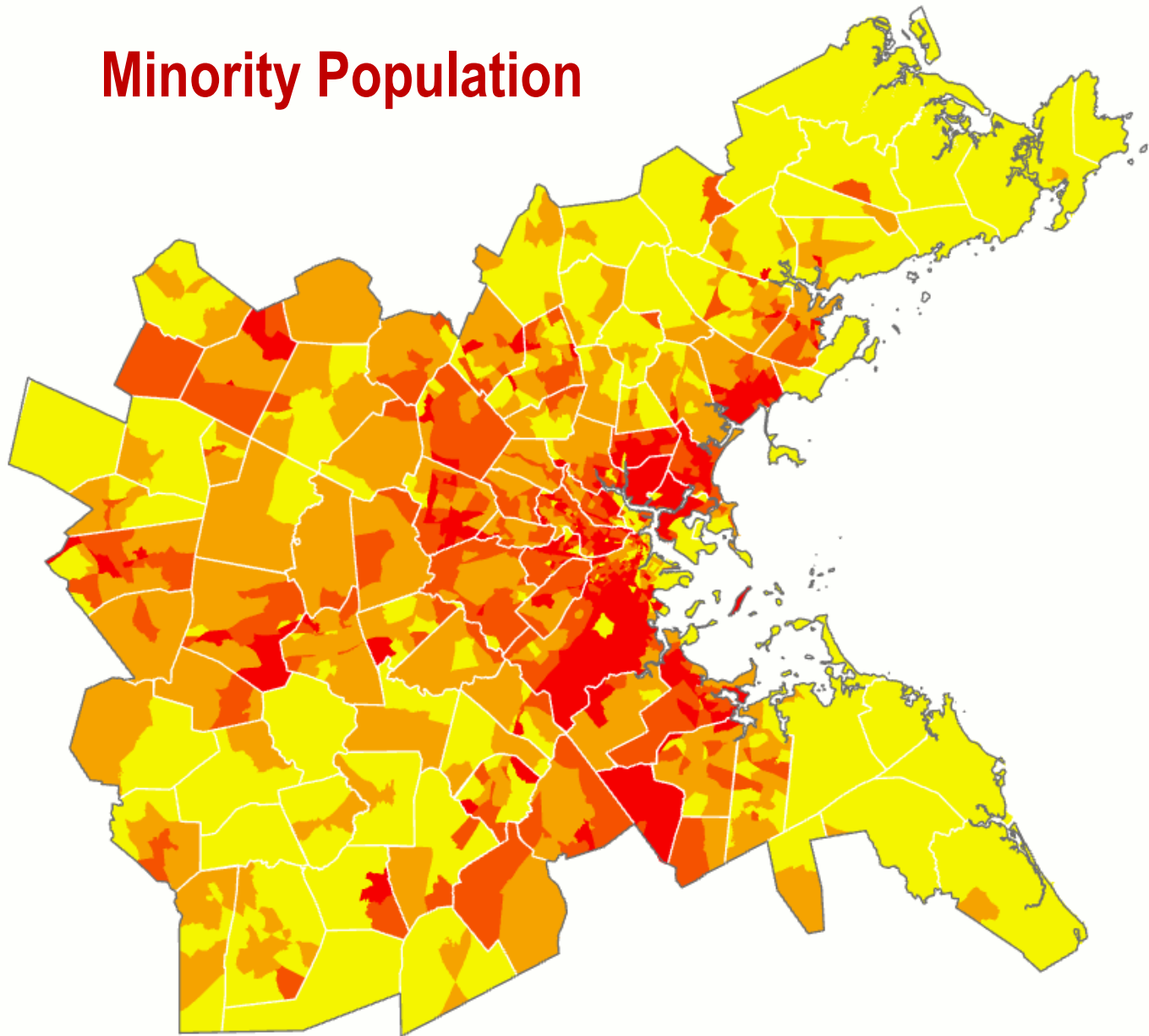


# Step 1

## Create Equity Index

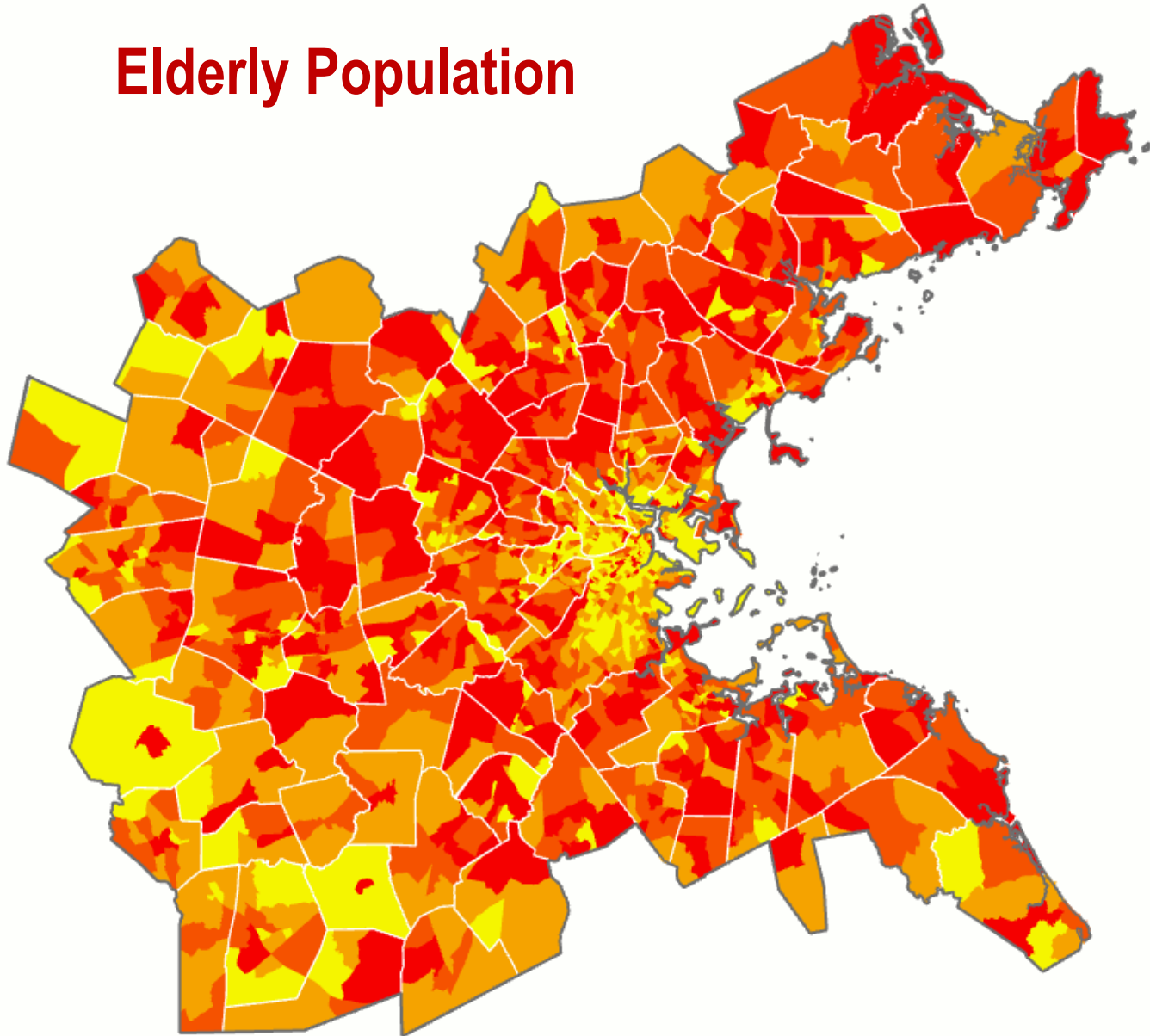
# Step 1: Create Equity Index

## Minority Population

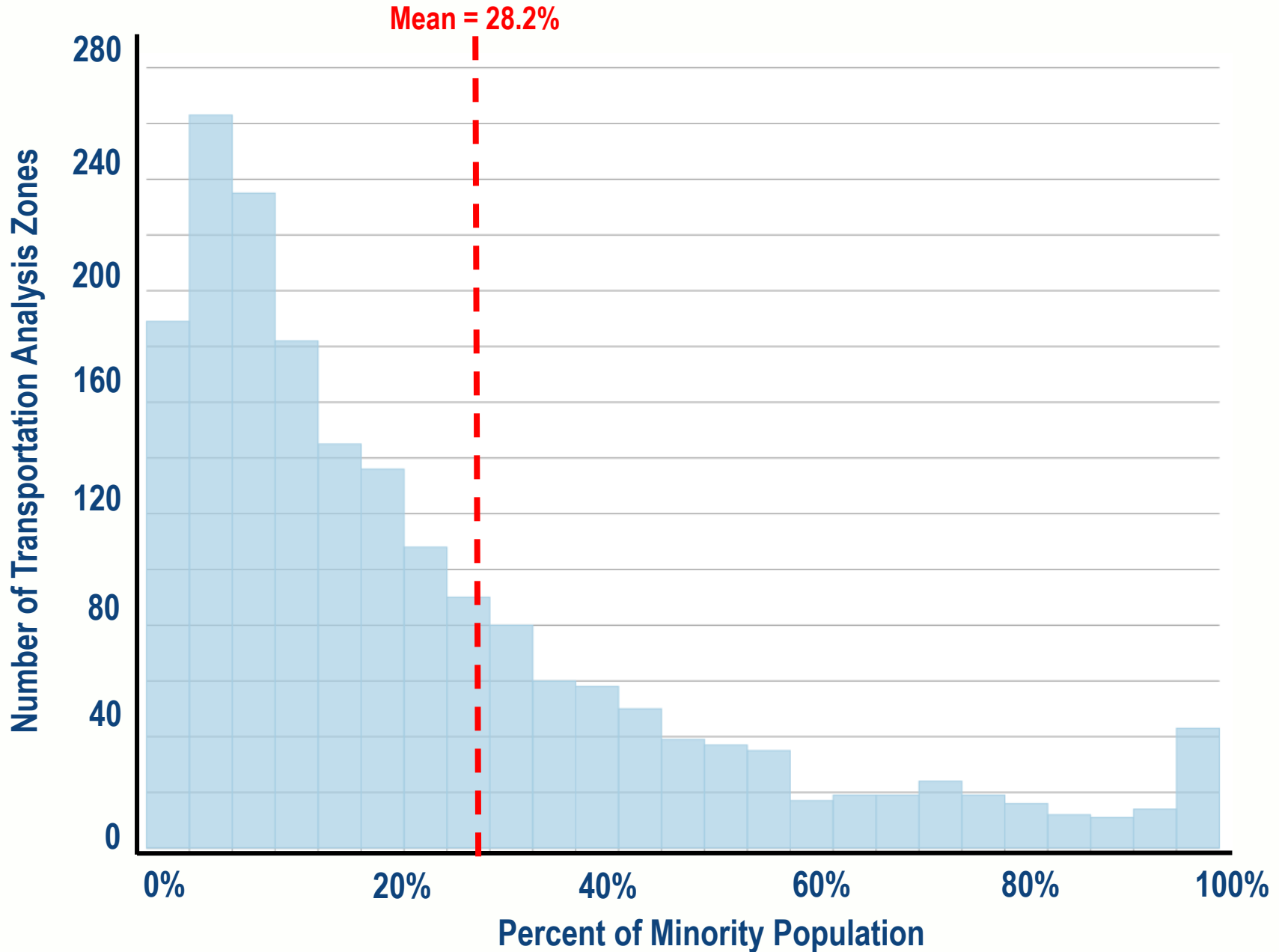


# Step 1: Create Equity Index

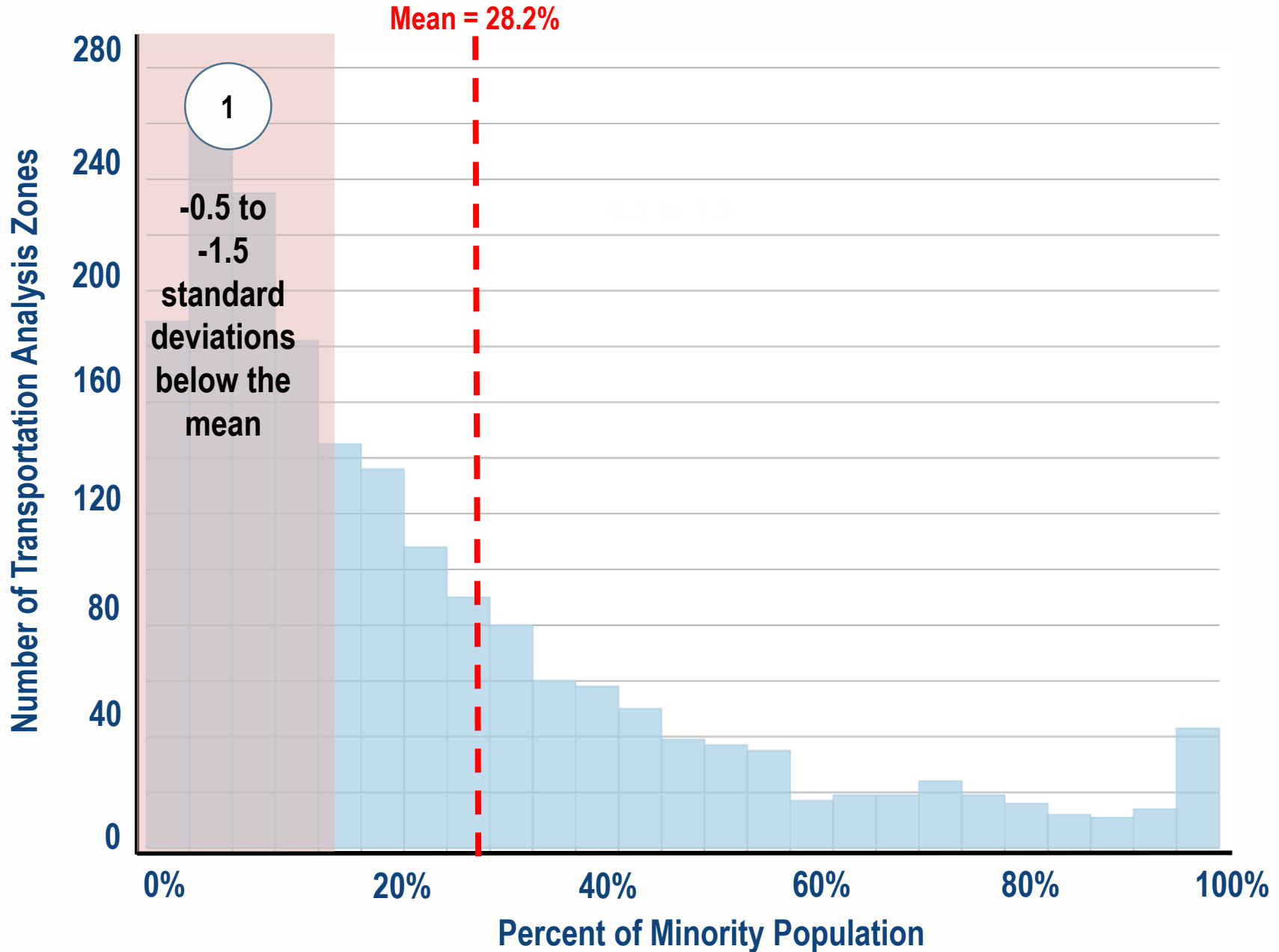
## Elderly Population



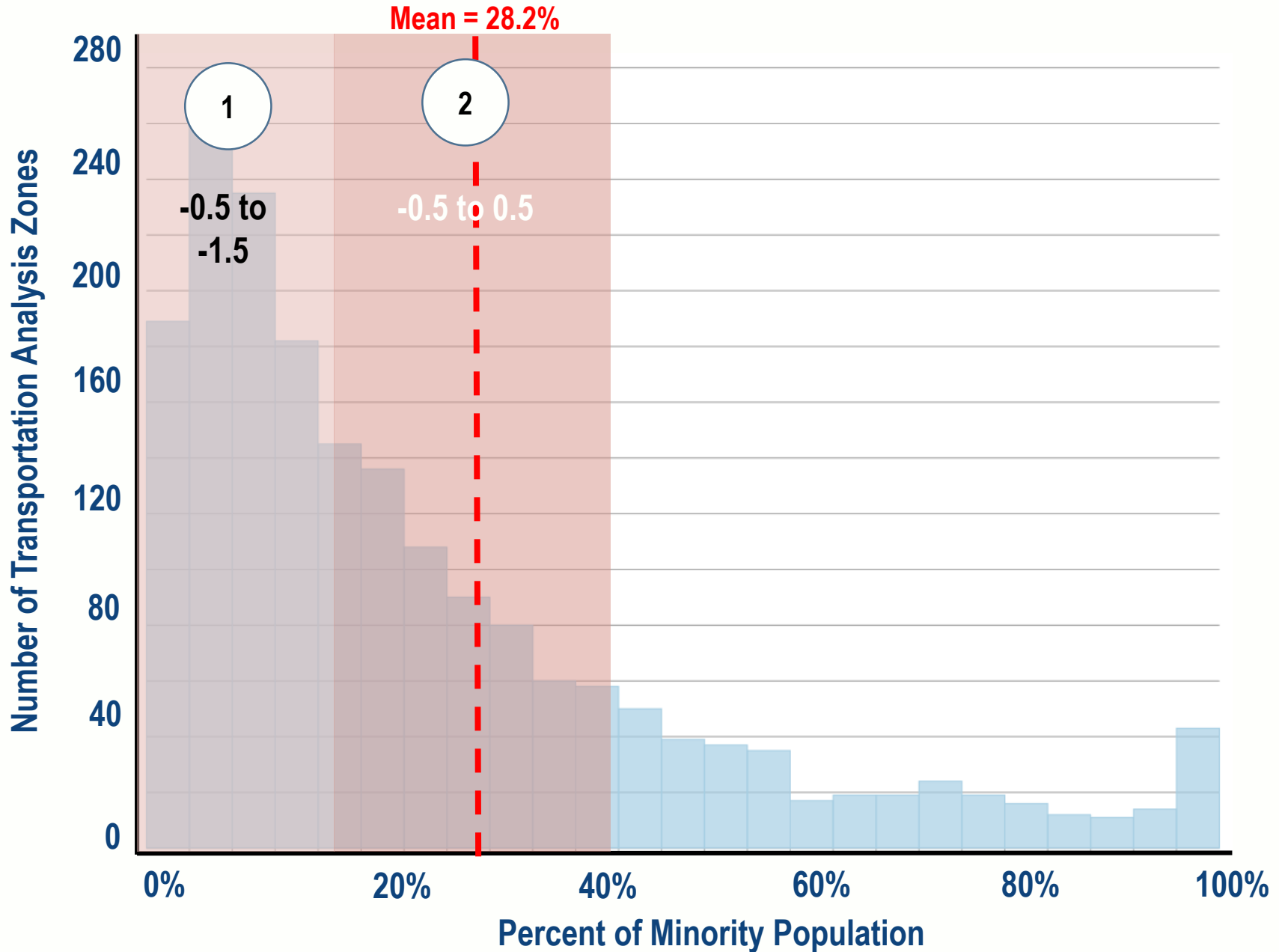
# Step 1: Create Equity Index



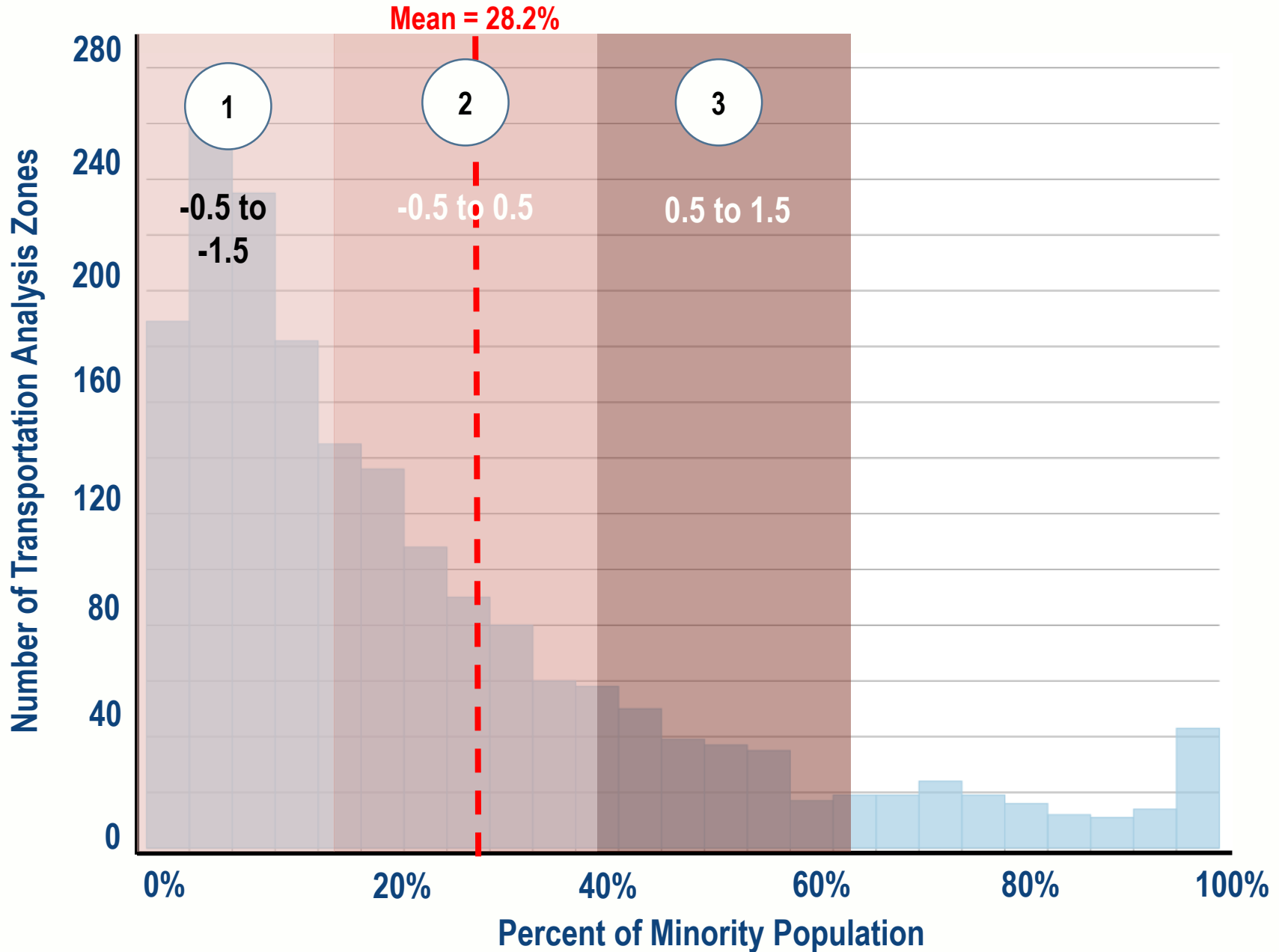
# Step 1: Create Equity Index



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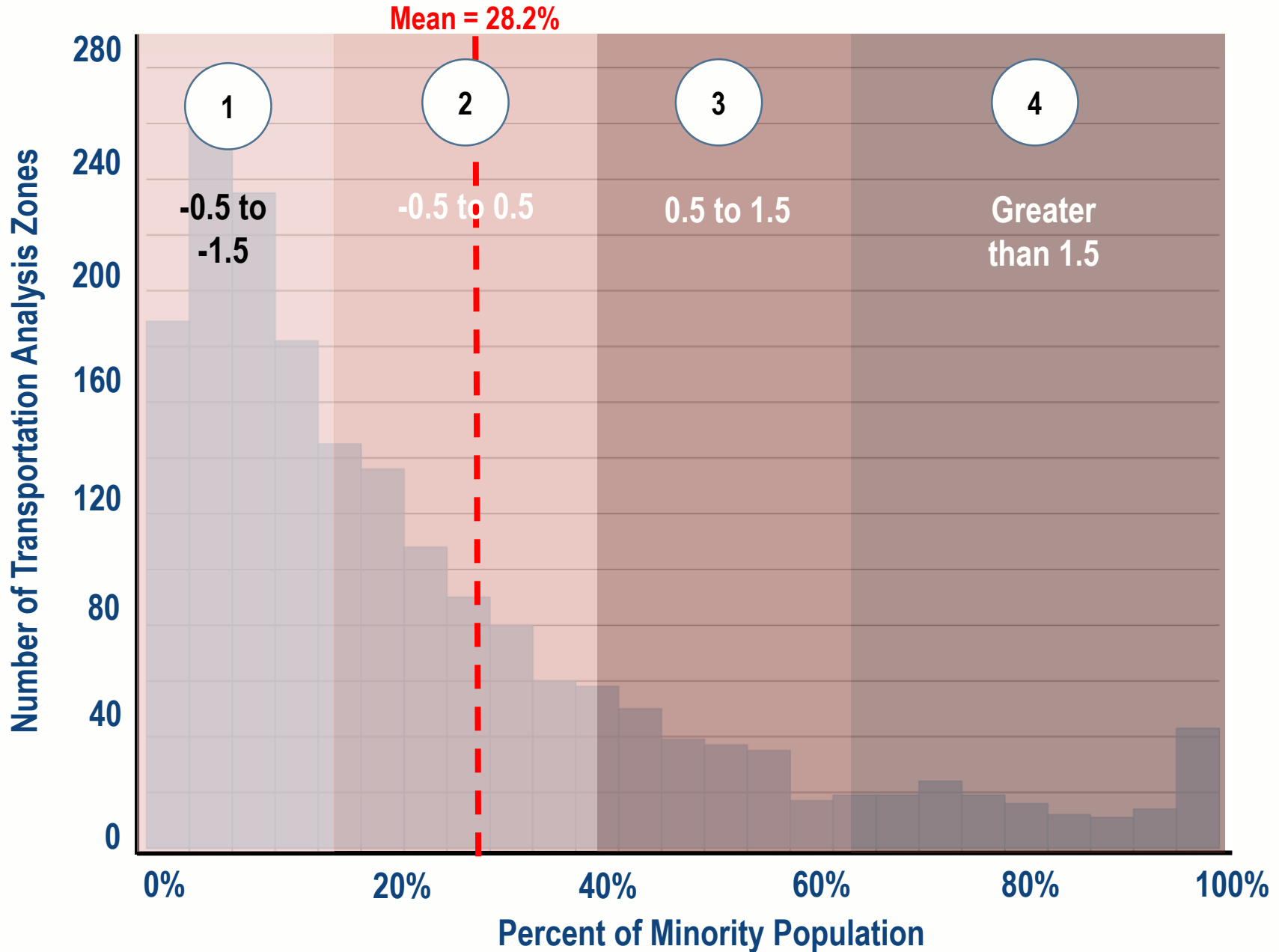


# Step 1: Create Equity Index





# Step 1: Create Equity Index



# Step 1: Create Equity Index

Demographic Group	Base Index Points	Population Weight	Maximum Index Points
Minority population	1 through 4	x2	8
Low-income population		x1	4
People with LEP		x1	4
People with disabilities		x0.5	2
Elderly population		x0.5	2
Youth population		x0.5	2
<b>HIGHEST POSSIBLE INDEX</b>			<b>22</b>

# Step 2

## Score Project

# Step 2: Score Project

## Identify Project's Equity Multiplier

Project's Equity Index	Project's Equity Multiplier
1 to 5	1.25
6 to 10	1.5
11 to 15	1.75
16 or greater	2

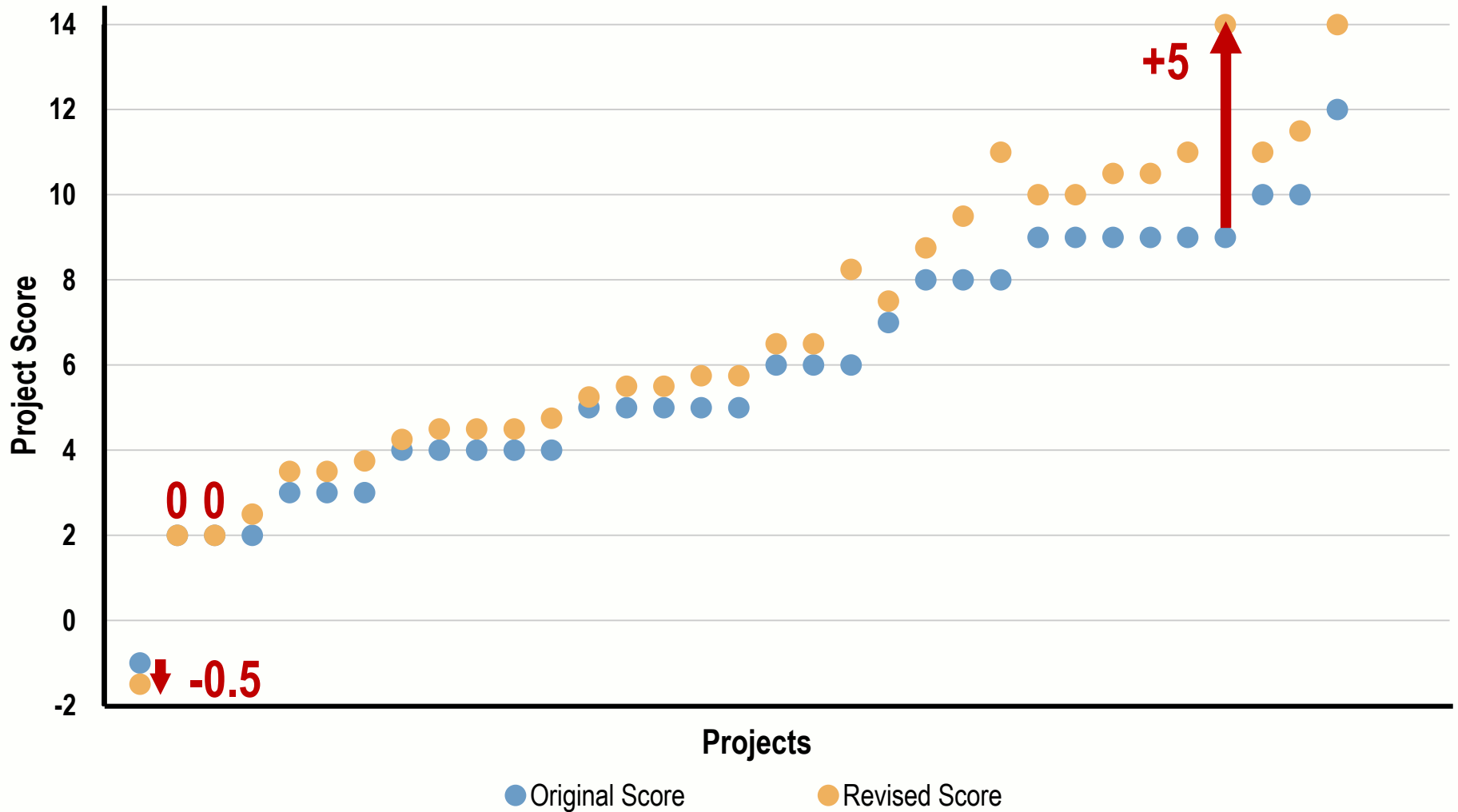
# Step 2

## Score Project

### Hypothetical Project Scores for CA/SC Criteria

Criteria	Base Score	Multiplier	Final Score
Reduces CO <sub>2</sub> emissions	3	None	3
<b>Reduces other transportation-related emissions (CO, NO<sub>x</sub>, VOCs, and PM<sub>2.5</sub>)</b>	<b>5</b>	<b>1.5</b>	<b>7.5</b>
Addresses environmental impacts	1	None	1
Enhances the natural environment	2	None	2
	<b>11</b>		<b>13.5</b>

# Change between Original and Revised CA/SC Scores (FFYs 2017-20)



## Notes:

- Does not include PM<sub>2.5</sub> criteria
- Two project scores did not change
- Average change of +1

# Questions?

# Feedback?